

Notice of Allowability

Application No.

10/709,167

Examiner

Thanh D. Vo

Applicant(s)

LIANG ET AL.

Art Unit

2189

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed on November 6, 2006.
2. ☒ The allowed claim(s) is/are 1-4 and 6-8.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

ALLOWANCE

1. This Office Action is responsive to the Amendment filed on November 6, 2006. Claim 5 has been cancelled. Claims 1, 4, and 8 have been amended. Claims 1-4, 6-8 are in condition for allowance.

Reason for Allowance

2. The following is an examiner's statement of reason for allowance:

Bennett et al. (US 2005/0144360) discloses a method of increasing the endurance of a non-volatile memory system contains erasable blocks (See Fig. 7A). The memory management system is capable of updating the data in the block as request by the host. During the host write operation, the data is updated in the child block sequentially (page 6, paragraph 0088-0090).

Gan et al. (US 2005/005058) discloses a memory management method with a mother and child block concept to management the host write and erasure to the flash memory to upgrade the processing speed and shorten the time of transferring the data, and to further extend the life of the flash memory cell.

When the host is to write to page N, the controller will move to block 0 to block N-1 from the mother block to the child block. After finishing, the controller will wait until the host begins to write for the next time and judging whether to continue writing to the same address, if yes, then it is not need for the controller to find a new block but directly wrties into the very block. After finishing writing all of the pages of the child block, the

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controller will erase the mother block, and then replaces the mother block completely by the child block.

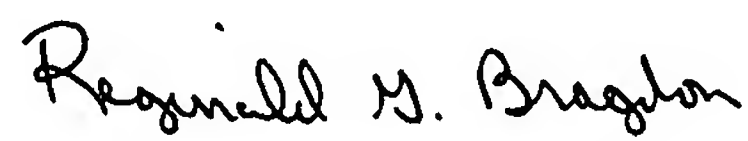
However, neither Bennett et al. nor Gan et al. specifically teach the sequential order of operations to manage the wear leveling of a flash memory being claimed in claims 1 and 6.

Therefore, claims 1 and 6 are in the condition for allowance. All claims that depend from claims 1 and 6 directly or indirectly are also allowable.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."



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12/07/2006



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